

## Proportions

**State if each pair of ratios forms a proportion.**

1)  $\frac{6}{15}$  and  $\frac{2}{3}$

2)  $\frac{3}{4}$  and  $\frac{9}{20}$

3)  $\frac{9}{8}$  and  $\frac{3}{2}$

4)  $\frac{6}{9}$  and  $\frac{2}{3}$

5)  $\frac{6}{8}$  and  $\frac{3}{4}$

6)  $\frac{4.4}{8}$  and  $\frac{2.2}{4}$

7)  $\frac{5.6}{4.4}$  and  $\frac{2.8}{2.2}$

8)  $\frac{3.2}{2.5}$  and  $\frac{9.6}{7.5}$

9)  $\frac{2.8}{3.9}$  and  $\frac{11.2}{15.6}$

10)  $\frac{2.3}{2.9}$  and  $\frac{4.6}{5.8}$

**Solve each proportion.**

11)  $\frac{2}{7} = \frac{k}{8}$

12)  $\frac{7}{9} = \frac{x}{2}$

13)  $\frac{8}{6} = \frac{x}{3}$

14)  $\frac{2}{n} = \frac{3}{6}$

15)  $\frac{k}{8} = \frac{8}{2}$

16)  $\frac{x}{2} = \frac{9}{7}$

17)  $\frac{3}{6} = \frac{n}{5}$

18)  $\frac{9}{m} = \frac{8}{10}$

19)  $\frac{3}{2} = \frac{r}{6}$

20)  $\frac{5}{9} = \frac{9}{x}$

21)  $\frac{b}{10} = \frac{10}{8}$

22)  $\frac{2}{5} = \frac{4}{n}$

23)  $\frac{v}{5} = \frac{6}{10}$

24)  $\frac{9}{8} = \frac{10}{x}$

25)  $\frac{10}{6} = \frac{4}{x}$

26)  $\frac{7}{10} = \frac{9}{a}$

27)  $\frac{4}{5} = \frac{k}{6}$

28)  $\frac{8}{5} = \frac{p}{10}$

29)  $\frac{x}{3} = \frac{7}{6}$

30)  $\frac{n}{4} = \frac{8}{10}$

$$31) \frac{4.1}{4.8} = \frac{5.6m}{8.8}$$

$$33) \frac{x}{2.4} = \frac{3.5}{1.9}$$

$$35) \frac{4.4}{b} = \frac{7.9}{9.8}$$

$$37) \frac{7}{8} = \frac{7.7}{x}$$

$$39) \frac{5.2}{1.5} = \frac{3.8}{a}$$

$$32) \frac{3.4}{1.1} = \frac{9.5}{r}$$

$$34) \frac{6.7}{n} = \frac{9.4}{3}$$

$$36) \frac{5.7}{v} = \frac{1.97}{4.6}$$

$$38) \frac{1.8n}{8.5} = \frac{3.3}{7}$$

$$40) \frac{2.1}{9.4} = \frac{k}{8.8}$$

**Answer each question and round your answer to the nearest whole number.**

41) Norachai took a trip to Peru. Upon leaving he decided to convert all of his Nuevos Soles back into dollars. How many dollars did he receive if he exchanged 38 Nuevos Soles at a rate of 19 Nuevos Soles for every \$6?

43) The currency in Jordan is the Dinar. The exchange rate is approximately 3 Dinars to \$4. At this rate, how many Dinars would you get if you exchanged \$16?

45) Six plums cost \$4. How many plums can you buy for \$2?

47) A rectangle is 3 in tall and 2 in wide. If it is enlarged to a height of 15 in then how wide will it be?

49) Micaela reduced the size of a rectangle to a width of 2 in. What is the new height if it was originally 4 in wide and 8 in tall?

51) A model statue has a scale of 3 in : 4 ft. If the model statue is 9 in tall then how tall is the real statue?

53) A model motorcycle is 15 in long. If it was built with a scale of 3 in : 2 ft then how long is the real motorcycle?

55) If a 16 ft tall flagpole casts a 8 ft long shadow then how tall is a woman that casts a 3 ft shadow?

42) Pranav was planning a trip to Saudi Arabia. Before going, he did some research and learned that the exchange rate is 11 Riyals = \$3. How many Riyals would he get if he exchanged \$6?

44) Mofor bought 12 advocados for \$18. How many advocados can Stefan buy if he has \$6?

46) If you can buy eight packages of blueberries for \$24 then how many can you buy with \$12?

48) A photo is 3 in wide and 1 in tall. If it is enlarged to a width of 6 in then how tall will it be?

50) The currency in Peru is the Nuevo Sole. The exchange rate is approximately 6 Nuevos Soles for \$2. At this rate, how many dollars would you get if you exchanged 12 Nuevos Soles?

52) Find the distance between Sun Valley and Georgetown on a map with a scale of 4 in : 17 mi if they are actually 34 mi apart.

54) A particular giraffe is 16 ft tall. A model of it was built with a scale of 4 in : 8 ft. How tall is the model?

56) A 20 ft tall ladder standing next to a statue casts a 12 ft shadow. If the statue casts a shadow that is 9 ft long then how tall is it?

57) If a 9 ft tall tent casts a 8 ft long shadow then how long is the shadow that a 18 ft tall statue casts?

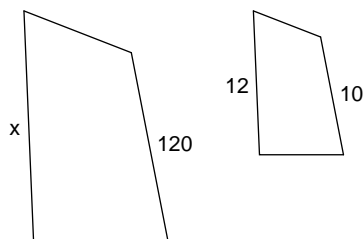
59) Find the distance between Union and Milton on a map with a scale of 2 cm : 16 km if they are actually 80 km apart.

58) An adult elephant that is 9 ft tall casts a shadow that is 3 ft long. Find the length of the shadow that a 3 ft globe casts.

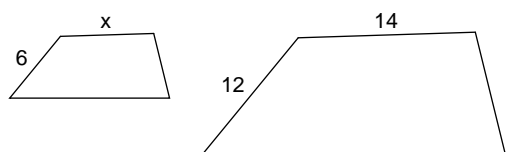
60) A model car is 12 in long. If it was built with a scale of 4 in : 3 ft then how long is the real car?

**Each pair of figures is similar. Find the missing side.**

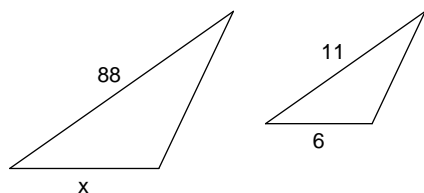
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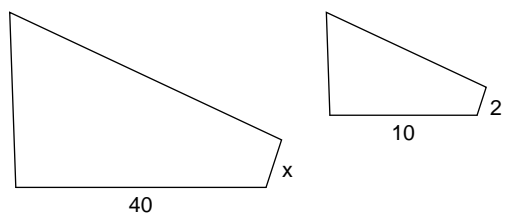
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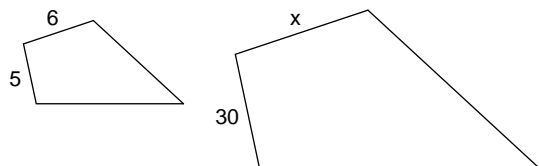
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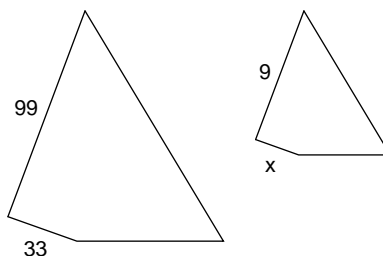
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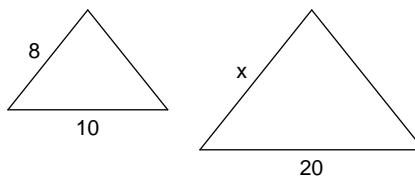
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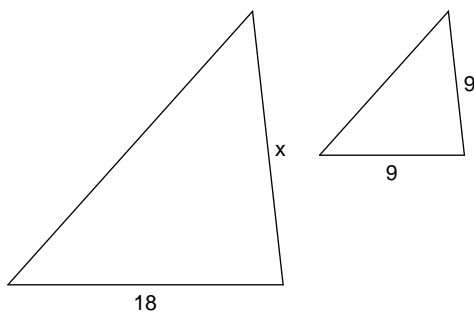
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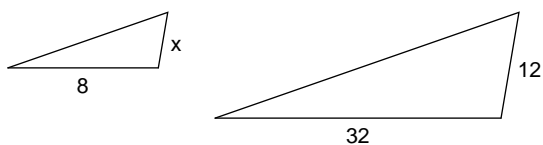
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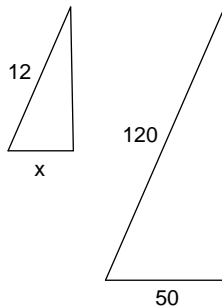
66)



68)



70)



## Answers to Proportions

- |            |               |               |            |
|------------|---------------|---------------|------------|
| 1) No      | 2) No         | 3) No         | 4) Yes     |
| 5) Yes     | 6) Yes        | 7) Yes        | 8) Yes     |
| 9) Yes     | 10) Yes       | 11) {2.28}    | 12) {1.55} |
| 13) {4}    | 14) {4}       | 15) {32}      | 16) {2.57} |
| 17) {2.5}  | 18) {11.25}   | 19) {9}       | 20) {16.2} |
| 21) {12.5} | 22) {10}      | 23) {3}       | 24) {8.88} |
| 25) {2.4}  | 26) {12.85}   | 27) {4.8}     | 28) {16}   |
| 29) {3.5}  | 30) {3.2}     | 31) {1.34}    | 32) {3.07} |
| 33) {4.42} | 34) {2.13}    | 35) {5.45}    | 36) {13.3} |
| 37) {8.8}  | 38) {2.22}    | 39) {1.09}    | 40) {1.96} |
| 41) \$12   | 42) 22 Riyals | 43) 12 Dinars | 44) 4      |
| 45) 3      | 46) 4         | 47) 10 in     | 48) 2 in   |
| 49) 4 in   | 50) \$4       | 51) 12 ft     | 52) 8 in   |
| 53) 10 ft  | 54) 8 in      | 55) 6 ft      | 56) 15 ft  |
| 57) 16 ft  | 58) 1 ft      | 59) 10 cm     | 60) 9 ft   |
| 61) 144    | 62) 3         | 63) 7         | 64) 16     |
| 65) 48     | 66) 18        | 67) 8         | 68) 3      |
| 69) 36     | 70) 5         |               |            |